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An Inaugural Essay
on Acute Hepatitis
For the degree of Doctor of Medicine
in the
University of Pennsylvania
by
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Acute Hepatitis

This disease consists in an active inflammation of the liver, either involving its whole structure, or limited to its peritoneal covering; and hence must vary in severity according to its extent, duration, and the patients constitution; consequently, the symptoms by which its presence is manifested will be different as the circumstances under which it exists.

From its early developement, the importance of its functions, and the intimate sympathetic connexion which exist between it and the other principal viscera, as the brain, lungs, stomach &c, its derangement must necessarily

exert a wide and important influence upon nearly all the functions of the body. Thus, from hepatic derangement we have various and depressing affections of the mind, as the consequence of its connexion with the brain through the all pervading influence of the nervous system; and reciprocally, we have abscesses of the liver, as the consequence of injuries done to the brain: we have dyspeptic and other affections of the stomach from functional derangement of the liver, and inflammation of the latter organ as the effect of gastric or enteritic irritations: pulmonic inflammation and abscesses from hepatic derangement, and hepatitis as the result of pneumonic or pleuritic inflammation; so that an inquiry into all the

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consequences which might follow, or co-exist with the disease under consideration, would greatly exceed both the object and the necessary limits of this paper; hence I shall confine my remarks to a concise account of its symptoms, causes, and treatment, without pretending to go into an extended disquisition on its pathology, or even therapeutical management, when extensively and variously complicated.

The better to arrive at this object, I shall speak only of the acute form of hepatitis, as in that state it is less usually complicated with the other and remote affections, which are so frequently the associates of its more chronic character.

Acute hepatitis is very commonly ushered in by strong marks of

physical excitement, as chills or rigors, flushes, hot skin, thirst, frequent & corded pulse: at the same time there is more or less fulness and tension of the hypochondriac region, attended with pain more or less acute, especially when pressed upon, and this pain is very frequently extended up to the top of the shoulder, where it is sometimes even more intolerable than in the region of the liver itself.

From the immediate connexion of the liver with the stomach, there is not unfrequently vomiting of bilious matter; and its proximity to the diaphragm and lungs gives rise very commonly to difficult respiration, with a short and dry cough.

It sometimes happens, particularly

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in women, that all the phenomena of the disease take place in the left side, when this occurs, the left lobe is generally its seat.

In the commencement the heat of the surface is intense, attended by great thirst, the tongue being white, or covered with a yellowish fur; a scalding sensation in passing the urine, which is charged with bile; an icterich of the albuginea and skin; the pulse hard, full, and strong; the bowels costive, though in hot climates, acute hepatitis is often attended from the begining with small, liquid, and slimy discharges from the bowels.

As the disease advances the patient experiences great difficulty in lying on either side, and when

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he does thus lay, he rests best on the side affected.

The tenderness in some cases extends throughout the whole abdomen: this is believed to take place, when the peritoneal coat of the liver is affected, and the disease extends itself along that membrane.

In hot climates, where this disease occurs most frequently, and where of course the predisposing causes are most abundant, its progress is rapid: suppuration ensuing in a few days, and in some instances, without previous pain or fever; there being a mixed action of inflammation and congestion.

It is sometimes ushered in under the form of Cholera, morbus.

This disease like most others,

has its anomalies.

Professor Chapman mentions cases where all the premonitory signs were wanting, and the disease was disguised under the form of pneumonia or the head only was affected, or the kidneys, or the umbilicus, or the calf of the leg, or there was paralysis of the arm.

Thus, Hepatitis is sometimes shrouded in obscurity, and eminently calculated to deceive the young practitioner.

It was the opinion of Dr. Cullen that when the convex surface of the liver was the part diseased, the lungs were likewise affected; when the under surface was affected, the abdominal contents suffered; when the peritoneal investment of the liver is inflamed

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the patient experiences severe lancinating pains, with a corded pulse, and the general aspect but slightly changes; when the inflammation extends to the parenchymatous structure, the pulse is full and round, with a sensation of fulness and weight in the part, the skin and eyes tinged of a yellow or saffron hue.

Both sexes are liable to Hepatitis, though women are supposed to be not so frequently affected with it as men; children are also much exposed to it in miasmatic district.

The causes are vicissitudes of weather, blows, falls, wounds, intemperance, intense heat, miasma, cold after profuse perspiration, excessive grief violent rage, affections of the mind,

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The too common use of mercury is mentioned by Dr. Somerville of Virginia, as one of the most frequent causes.

In the diagnosis there is generally some difficulty.

The diseases with which it is most liable to be confounded, are, Pneumonic inflammations, Gastritis, abscess in the parieties of the colon, as it passes though the right hypochondrium, spasm of the gall ducts from Calculi &c.

From the first it may be distinguished by the pain, cough, and respiration not being similar; in Hepatitis, the pain is not so severe, and extends to the shoulder; the cough is dry, and seldom any expectoration of blood,

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the respiration much less difficult; in hepatic inflammation, the easiest position is on the affected side; in Pleuritis, on the sound side; in Hepatitis, pressure on the right hypochondriac region aggravates the pain; there is also a sallow countenance, gastric distress, the urine when emitted produces a scalding sensation and depositing a sediment and the faces being of a clay or ash colour.

From Gastritis it may be known by the extreme prostration in the latter, the immediate rejection of every thing taken into the stomach, the small tense pulse &c.

It may be distinguished from spasm of the gall ducts by the absence of fever and the intermitting character

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of the pain in the latter affection.

If the disease resists the usual remedies, or is suffered to run its course, it may terminate either in resolution, suppuration, gangrene, induration or scirrhus.

If it does not end in resolution, it generally terminates in suppuration, and then the degree of danger, depends much upon the situation of the abscess; if it points externally, an opening should be made, and the matter evacuated accordingly.

It sometimes forms adhesions to some part of the alimentary canal and breaks into it, or the matter passes through the biliary ducts, and is thrown out by vomiting, or is carried off by the rectum.

It sometimes bursts into the thorax,

and the patient dies from suffocation, or the matter is discharged by expectoration, though recoveries are extremely rare when this takes place, and always fatal when the abscess burst into the cavity of the abdomen.

It is an extremely rare occurence for it to terminate in gangrene.

When this disease terminates by resolution, there are critical discharges from the nose, hemorrhoidal vessels, or by perspiration, or by a spontaneous diarrhea, or the irritation is transferred to the skin, and appears in the form of Erysipelas.

Examinations after death, prove that the Liver is variously affected.

It has been found much enlarged, its colour changed, indurated or

tuberculated; its peritoneal coat exhibiting marks of inflammation or preternatural adhesions to the neighbouring parts. abscesses, hydatids, and biliary calculi; have all been found upon inspection of those who have died of this disease.

Prognosis, of this it will be sufficient to say, that when timely attacked with appropriate remedies, it is submissive: under other circumstances it is fatal, or leaves behind it a distressing train of symptoms, which sometimes continue to harass the patient the remainder of his life.

Most Pathologists agree that it has its primary seat in the mucous membrane of the stomach: this first becomes irritated, and the irritation

then extends to the liver, as in Cholera Morbus.

Treatment. During the inflammatory stage it will be proper to adopt general bleeding; twenty or thirty oz. of blood should be abstracted at the first operation, and if this should not be sufficient to make a salutary impression on the system, it should be repeated, regulating the quantity taken away by the severity of pain and the degree of fever present. By neglecting to bleed sufficiently in this disease, suppuration is likely to ensue. Cups and leeches to the hypochondrium, are important auxiliaries, and should never be omitted.

Purgatives are very serviceable in the early stages of Hepatitis.

We may begin with jalap, combined with calomel, in sufficient quantity to evacuate the bowels thoroughly; after this, calomel given in large doses at night, and worked off in the morning by means of Epsom salts or castor oil.

Calomel is somtimes given in small doses, until 15 or 20 grs. are taken, and then purged ~~purged~~ off in the manner mentioned above. Counter irritants, by means of blisters, are very beneficial. Leeches applied to the anus have been useful in diminishing the quantity of blood sent to the liver through the vena Portarum. The secretory function of the liver being impaired, healthy action cannot be induced until this is restored; which may be most generally accomplished, by a rigid —

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enforcement of the plan of treatment already laid down, aided by fomentations to the region of the Liver, antimonial diaphoretics, acidulated drinks, and a strict adherence to the antiphlogistic regimen. After this plan has been rigidly observed for six or seven days and the disease does not yield, mercury should be employed with a view to produce ptyalism; in order to effect this calomel should be administered in half gr. doses, two or three times a day. to obviate its purgative effect, it may be combined with a small quantity of Opium, and its operation may be much assisted by the external application of Mercurial ointment, which may be applied to the region of the Liver-

Salivation, in order to be effectual, should be gradually induced and kept up for some time. Dr Johnson speaks very highly of the nitro-muriatic acid bath, or sponging the whole surface of the body with it, as a mode of producing salivation, or as an adjuvant to Mercury - the following is the formula. of nitric and muriatic acid, aa one part, water two parts. of this mixture take ℥j. to boiling water four quart.

To obviate the too severe effect of Mercury, a solution of any of the neutral salts, or an infusion of senna may be given, every three or four days; suppuration sometimes takes place in spite of all our efforts; when this is the case, and the abscess points

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externally, it must be opened, and the matter evacuated, after which the patient will be in a debilitated state, and will require tonics, with a mild and nutritious diet; the nitro-muriatic acid forms a most excellent tonic, and should not be neglected, especially where the secretory power is but imperfectly restored, and the longer continuence of Mercury would not be advisable.